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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Conrad Thomas

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EXAMINER

AMORES, KAREN J

ART UNIT

PAPER NUMBER

3616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,219	Applicant(s) THOMAS ET AL.	
	Examiner KAREN JANE J. AMORES	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 16-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15,30 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/19/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in the reply filed on 27 November 2007 is acknowledged. The traversal is on the ground(s) that each of the claims provides an application of various treatments of the bearing materials. This is not found persuasive because Groups II – IV are mutually exclusive from the invention of Group I, and the Applicant has not identified or showed the species to be obvious variants admitted on record (37 CFR 1.143).

The requirement is still deemed proper and is therefore made FINAL.

Priority

2. Applicant is advised of possible benefits under 35 U.S.C. 119(a)-(d), wherein an application for patent filed in the United States may be entitled to the benefit of the filing date of a prior application filed in a foreign country.

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 27 June 2003. It is noted, however, that applicant has not filed a certified copy of the 103 29 037.0 application as required by 35 U.S.C. 119(b).

Drawings

4. The drawings are objected to because of minor informalities: the Figures 2 – 4, 8, and 10 – 13 are blurred or not clear. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior

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version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not clarify or describe the chassis bearings’ “specific vibration excitation separately from the roadway”.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 5, 6, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 5 recites the limitation "their specific vibration excitation" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 6 recites the limitation "the corresponding signals" in line 3. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 15 recites the limitation "the switching means" in line 2. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 15 recites the limitation "the indicated connections" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1 – 4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Stiller et al. U.S. 2002/0161498 ("Stiller"). Stiller discloses a method for damping vibrations on chassis

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bearings of motor vehicles [0001], wherein the driving state of the motor vehicle and/or the roadway conditions are detected by way of sensors and that the at least one chassis bearing is modified to different characteristics to change its stiffness and/or damping depending on the detected parameters [0015].

15. In reference to claims 2 – 4 and 8, Stiller further discloses the chassis bearing switched to different characteristics (fig. 3); wherein depending on the roadway conditions an opposing vibration is superimposed on the chassis bearing [0003]; wherein for defined driving states of the motor vehicle a setting of the chassis bearing which increases the driving safety has priority [0002]; and with sensors for detecting the driving state of the motor vehicle and for roadway conditions [0015], with an electronic control device for processing of the acquired signals and for selection of various controllable characteristics (fig. 3), and at least one chassis bearing [0028], the stiffness and/or damping (k_{sky}) of which can be modified.

16. Claims 1, 3, 5, 8, 30, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Maier et al. D.E. 10117305 ("Maier"). Maier discloses a method for damping vibrations on chassis bearings of motor vehicles [0001], wherein the driving state of the motor vehicle and/or the roadway conditions are detected by way of sensors and that the at least one chassis bearing is modified to different characteristics to change its stiffness and/or damping depending on the detected parameters [0004].

17. In reference to claims 3, 5, 8, 30, and 31, Maier further discloses depending on the roadway conditions an opposing vibration is superimposed on the chassis bearing [0004]; wherein for several chassis beatings with superposition of an opposing vibration the chassis

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bearings are triggered separately and depending on their specific vibration excitation separately from the roadway [0007]; with sensors for detecting the driving state of the motor vehicle and for roadway conditions, with an electronic control device for processing of the acquired signals and for selection of various controllable characteristics [0014], and at least one chassis bearing, the stiffness and/or damping of which can be modified [0003]; wherein the chassis bearing is one or more auxiliary frame bearings of an auxiliary frame which is mounted on the front axle and/or the rear axle of the motor vehicle [0002]; wherein the chassis bearing is one or more arm bearings of a suspension arm which is mounted on the front axle and/or the rear axle of the motor vehicle [0020].

18. Claims 1, 2, and 6 – 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugasawa U.S. 4,749,210 (“Sugasawa”). Sugasawa discloses a method for damping vibrations on chassis bearings of motor vehicles (column 1, line 25), wherein the driving state of the motor vehicle and/or the roadway conditions are detected by way of sensors and that the at least one chassis bearing is modified to different characteristics to change its stiffness and/or damping depending on the detected parameters (column 2, line 58).

19. In reference to claim 2 and 6 – 9, Sugasawa further discloses the chassis bearing is switched to different characteristics (fig. 2); wherein the roadway conditions can be detected on the front axle of the motor vehicle by way of path and/or acceleration sensors (fig. 4), wherein the corresponding signals are processed in a control device (100), and wherein the chassis bearings by way of power amplifiers are supplied with electricity or exposed to electromagnetic fields (equation 2), and/or by way of piezoelements (652, 654); wherein a rapid modification of

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the characteristic of at least one chassis bearing on the rear axle is controlled by way of the roadway states which have been detected on the front axle of the motor vehicle (column 27, line 38; and column 8, line 59); sensors (202) for detecting the driving state of the motor vehicle and for roadway conditions, with an electronic control device (100) for processing of the acquired signals and for selection of various controllable characteristics, and at least one chassis bearing (642), the stiffness and/or damping of which can be modified; and wherein the chassis bearing can be switched in four different characteristics from low stiffness and low damping to high stiffness and high damping (column 6, line 37 through column 7, line 16).

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maier in view of Hoying et al. U.S. 4,789,142 ("Hoying"). Maier discloses an opposing vibration is superimposed on the chassis bearing [0004]. Maier does not directly disclose it to depend on the roadway conditions. Hoying teaches an opposing vibration is superimposed on a chassis bearing depending on roadway conditions (column 5, line 31). It would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify Maier such that it comprised the dependence on roadway conditions in view of the teachings of Hoying so as to provide a maximum damping effect and noise suppression (column 5, line 51).

22. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maier in view of Hagen et al. U.S. 4,813,705 ("Hagen"). Maier discloses chassis bearings by way of power amplifiers are supplied with electricity or exposed to electromagnetic fields or by way of piezoelements (3). Maier does not directly disclose the roadway conditions to be detected on the front axle. Hagen teaches roadway conditions can be detected on a front axle of a motor vehicle by way of path or acceleration sensors (column 1, line 10), wherein corresponding signals are processed in a control device (column 2, line 35). Hagen further teaches wherein a rapid modification of the characteristic of at least one chassis bearing on the rear axle is controlled by way of the roadway states which have been detected on the front axle of the motor vehicle. It would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify Maier such that it comprised the roadway conditions to be detected on the front axle in view of the teachings of Hagen so as to provide information about the road profile (column 1, line 25).

23. Claims 10 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maier in view of Nakajima et al. U.S. 5,927,699 ("Nakajima"). Maier does not disclose the structure of the chassis bearing. Nakajima teaches a chassis bearing with an outer bush (514 and 516) and an inner bush between which there is at least one rubber-elastic support body, and wherein in the support body hydraulically acting working chambers (540) are formed which change the stiffness and the damping action of the chassis bearing by switching means. Nakajima further teaches wherein some working chambers (lower 540) act in the axial direction and other working

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chambers (upper 540) act in the radial direction, and wherein the two working chambers can be switched into two damping action positions by way of choke elements which can be modified by the switching means; wherein the radially acting working chambers (upper 540) are mounted within the rubber-elastic support body of the chassis bearing, and the connection between the working chambers can be controlled either by way of an annular choke channel (546) of greater choke action or by way of a short circuit channel (548) with lesser choke action; wherein the axially acting working chambers are mounted within the rubber-elastic support body of the chassis bearing and wherein the connection between the working chambers can be controlled either by way of an annular choke channel (540) of greater damping action or by way of a short circuit channel (546) with lesser damping action. It would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify Maier such that it comprised the structure of the chassis bearing in view of the teachings of Nakajima so as to cancel small-amplitude mechanical oscillation by the piezoactuator while cancelling large-amplitude vibrations through viscosity resistance (column 26, line 39).

24. Claims 10, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maier in view of Hamilton et al. U.S. 2003/0001346 ("Hamilton"). Maier does not disclose the structure of the chassis bearing. Hamilton teaches a chassis bearing having an outer bush and an inner bush between which there is at least one rubber-elastic support body [0003], and wherein in the support body hydraulically acting working chambers are formed which change the stiffness and the damping action of the chassis bearing by switching means [0004]. Hamilton further teaches wherein the hydraulic working chambers which change the stiffness of the chassis

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bearing are mounted within the rubber-elastic support body of the chassis bearing and wherein the connection between the working chambers can be closed or opened in a controlled manner [0005]; and wherein the switching means are slide valves (70) which can be electromagnetically actuated and which open or close the indicated connections in a controlled manner. It would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify Maier such that it comprised the structure of the chassis bearing in view of the teachings of Hamilton so as to form a pressure regulator by automatically adjusting the flow opening size for varying flow rates. Therefore, constant pressure is automatically maintained [0136].

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lentz et al. U.S. 6,164,665 discloses a vehicle suspension system with continuously adaptive shock absorption that defines driving states of the motor vehicle priority to set the chassis bearing to a setting such that it increases driving safety.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAREN JANE J. AMORES whose telephone number is (571)272-6212. The examiner can normally be reached on Monday through Friday, 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on (571)-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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